

Exception Handling

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What is Exception Handling?

- An **exception** is an **unexpected event** or error that occurs during the execution of a program, which disrupts the normal flow of instructions.
- **Exception Handling** is a way to handle such errors gracefully without crashing the program.

Ex with program : print sysout 10 times and in the 5th position I will do sysout(100/0)...

Why is Exception Handling Important?

Imagine you're using an **online banking app**, and the app crashes every time you enter invalid input (e.g., letters instead of numbers for the account balance).

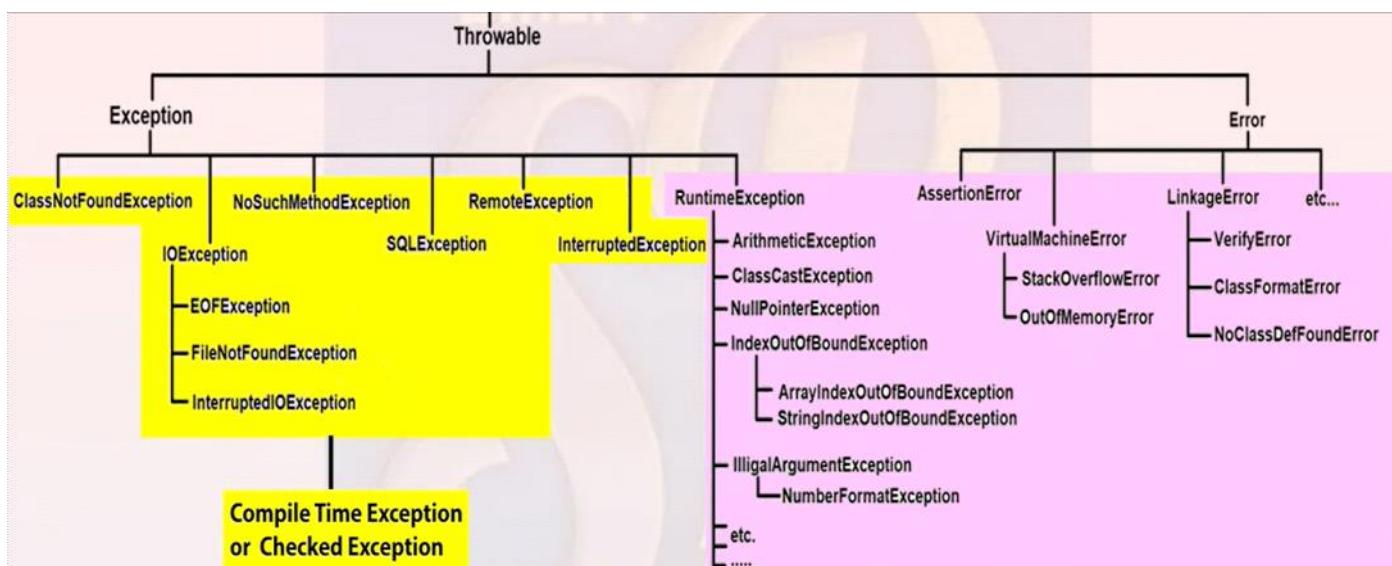
- With exception handling, the app can show a meaningful message like "Invalid input. Please enter a valid amount." instead of crashing.

➤ Exception Hierarchy:

1. Object class -> is the parent class of all the classes .
2. Throwable is the parent class of the exception and error class.

Q. Diff b/w Exception and error ?

Exception	Error
1. Exception occurs because of our programs	1. Error occurs because of lack of system resources.
2. Exceptions are recoverable i.e. programmer can handle them using try-catch block	2. Errors are not recoverable i.e. programmer can handle them to their level
3. Exceptions are of two types : <ul style="list-style-type: none">■ Compile Time Exceptions or Checked Exceptions■ Runtime Exceptions or Unchecked Exceptions	3. Errors are only of one type : <ul style="list-style-type: none">■ Runtime Exceptions or Unchecked Exceptions



**Compile Time Exception
or Checked Exception**

└ NumberFormatException
etc.
....

Runtime Exceptions or